

CLAIMS

WHAT IS CLAIMED IS:

1 1. An intramedullary lockable compression screw for stabilizing a joint in a body,
2 comprising:

3 an elongated tubular member extending along a substantially straight first
4 longitudinal axis between a leading end and a trailing end, and including (i) a threaded
5 leading end portion of a first diameter disposed proximate to the leading end, (ii) a
6 threaded trailing end portion of a second diameter, larger than the first diameter,
7 disposed proximate to the trailing end, and (iii) an unthreaded shaft portion
8 interconnecting the threaded leading end and the threaded trailing end portions; and

9 a through-hole configured to accommodate a locking screw, extending along a
10 straight second longitudinal axis between a first opening, in a first area of an outer
11 periphery of the tubular member proximate to the trailing end, and a second opening, in
12 a second area of the outer periphery of the tubular member distal to the trailing end,
13 with the second longitudinal axis intersecting the first longitudinal axis at an angle of
14 other than 90 degrees.

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1 2. An intramedullary lockable compression screw according to claim 1, wherein the
2 through-hole is adapted to accommodate a 4 mm locking screw.

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1 3. An intramedullary lockable compression screw according to claim 1, wherein:

the elongated tubular member has a sleeve portion extending from the trailing end, away from the leading end; and

the sleeve portion is aligned with the through-hole and configured to guide the locking screw into the first opening.

4. An intramedullary lockable compression screw according to claim 1, further comprising:

another through-hole configured to accommodate another locking screw, extending along a straight third longitudinal axis between a third opening, in a third area of the outer periphery of the tubular member, and a fourth opening, in a fourth area of the outer periphery of the tubular member, the third and the fourth areas being proximate to the leading end of the tubular member, with the third longitudinal axis intersecting the first longitudinal axis.

5. An intramedullary lockable compression screw according to claim 4, wherein the third longitudinal axis intersects the first longitudinal axis at a 90 degree angle.

6. An intramedullary lockable compression screw according to claim 4, wherein the other through-hole is adapted to accommodate a 4 mm locking screw.

7. An intramedullary lockable compression screw according to claim 4, wherein a cross section of the other through-hole, taken along the third longitudinal axis, has a first dimension in a direction parallel to the first longitudinal axis and a second dimension,

4 smaller than the first dimension, in direction perpendicular to the first longitudinal axis.

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1 8. An intramedullary lockable compression screw according to claim 7, wherein the first
2 dimension is approximately 1 inch.

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1 9. An intramedullary lockable compression screw according to claim 1, further
2 comprising:

3 an aperture in the trailing end of the tubular member, configured to accommodate
4 a tool for applying a torque to the tubular member.

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1 10. An intramedullary lockable compression screw according to claim 9, wherein the
2 aperture in the trailing end of the tubular member, includes:

3 a non-threaded portion configured to accommodate a tool for applying a torque to
4 the tubular member; and

5 a threaded portion configured to engage a tool for extracting the tubular member
6 from a body joint.